CASE REPORT

Journal of Contemporary Medicine and Dentistry
www.jcmad.com
ISSN [P-2347-4513]
ISSN [O-2349-0799]
Year: 2019
Volume: 7
Issue: 3
74-76

Uterine Angioleiomyoma - A Rare Case Report

Purva Jagetia,[1] Ketan Ingle,[2] Anita Sharan,[3] Sudhamani S[4]

1. Resident, Department of Pathology, Dr. D. Y Patil School of Medicine, Nerul, Navi Mumbai
2. Assistant Professor, Department of Pathology, KEM Hospital and Seth G S Medical College
3. Associate Professor, Department of Pathology, Dr. D.Y Patil School of Medicine, Nerul, Navi Mumbai
4. Professor, Department of Pathology, Dr. D.Y Patil School of Medicine, Nerul, Navi Mumbai

Abstract

Uterine angioleiomyoma is an extremely rare and unique variant of leiomyoma usually occurring in middle age women (3rd to 6th decade). A 35 year-old woman presented with complaints of abdominal pain and menorrhagia for 4 months. Ultrasonography was suggestive of large intramural fibroid. A total hysterectomy was done. Histopathological examination revealed well-circumscribed, white, homogenous mass 11x10x8cms in the lower uterine segment. On microscopy, a benign neoplasm composed of interlacing fascicles of spindle cells, intermingled with a large number of capillary vessels were noted. No cellular atypia, necrosis or mitoses were seen. The histopathological diagnosis was uterine angioleiomyoma.

***Keywords**: Angioleiomyoma, leiomyoma, uterine tumor*

Address for correspondence: Dr. Ketan Ingale, Assistant Professor, Department of Pathology, Seth GS medical college and KEM hospital, Parel, Mumbai- 400012 Email: inglekd@gmail.com Phone No:+919969259084

Date of Acceptance: 02/11/2019

Introduction

Angioleiomyoma, also known as vascular leiomyoma is a very rare and unique variant of uterine smooth muscle neoplasms composed of smooth muscle cells and vascular components. Angioleiomyomas are very difficult to diagnose without histopathology, as on radiological evaluation it shows features of Leiomyoma. On gross examination also, it can present as submucosal, intramural or subserosal whorled appearance. Therefore, on microscopy, the only diagnosis of angioleiomyoma can be confirmed. As this lesion is vascular, it may undergo spontaneous rupture and pose a life-threatening emergency. Only 15 cases of uterine angioleiomyoma have been reported in the literature. We presented a case of 'Capillary type Uterine Angioleiomyoma' in the young woman.

Case Report

A 35-year-old female presented with complaints of menorrhagia and pelvic pain for 4 months. Pelvic ultrasonography was suggestive of the bulky uterus with large fibroid 9x7x6cms originating from the left anterior wall of the body of the uterus extending to the lower uterine segment. The patient underwent a total hysterectomy. We received a specimen of the uterus with the cervix. On gross examination, a well-circumscribed tumor 11 x 10 x 8 cm involving the anterior wall of the uterus was identified. Uterine cavity and the cervix were distorted. The cut surface of the tumor was homogenous, solid and white, with few foci of hemorrhage (Figure 1). No whorling pattern was noted on gross examination. On microscopy, sections from myometrium showed a benign neoplasm composed of interlacing fascicles of spindle cells with oval to elongated nuclei showing blunt ends, indicative of smooth muscle cell morphology. Many interspersed, variable-sized thin and thick-walled blood

vessels lined by endothelium amidst smooth muscle bundles arranged concentrically were seen throughout the tumor (Figure 2 & 3). There was no nuclear atypia, increased mitotic activity or necrosis. The tumor was also seen extending up to the cervix. Sections from endometrium showed a secretory phase. Based on these findings, a diagnosis of uterine angioleiomyoma was made.

Figure- 1: On gross examination, the tumor was homogenous, white, no whorling pattern seen

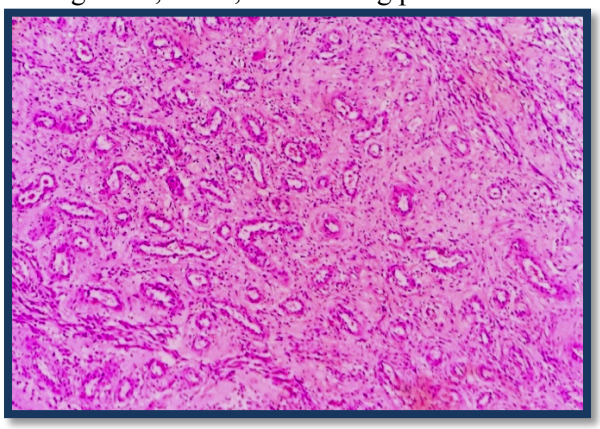

Figure- 2: Microscopically, prominent vessels (capillary type) interspersed with smooth muscles

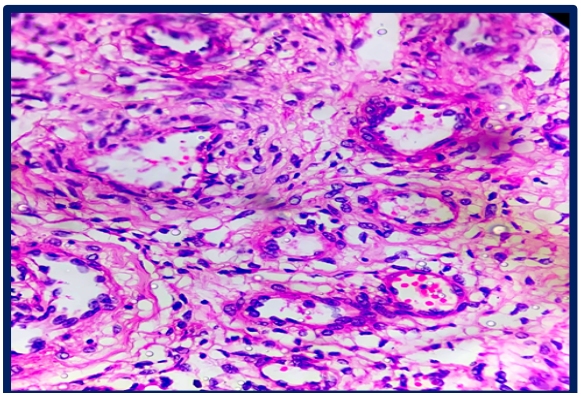

Figure- 3: Microscopically, prominent vessels lined by endothelial cells interspersed with smooth muscles (H&E40X)

Discussion

Leiomyomas are generally well-differentiated smooth muscle tumors. They can occur in any organ but leiomyomas of the uterus are extremely common neoplasms. The incidence rises to nearly 40% in women over the age of 50 years. Clinically they usually present with menorrhagia. Angioleiomyoma, a rare variant of leiomyoma also known as vascular leiomyoma is a well-circumscribed tumor that shows many dilated vascular spaces lined by endothelium [1] amidst smooth muscle bundles arranged more concentrically. It usually presents between the fourth and sixth decades of life. The most common site of presentation is lower extremities followed by trunk wall, head, and neck [2-5]. The female genital tract is very rarely involved. Abdominal pain is the most common clinical presentation of uterine angioleiomyomas followed by menorrhagia. In our case, the patient presented with abdominal pain and menorrhagia. Ultrasonography is a primary investigation pre-operatively, but tumors with cystic degeneration may resemble cystic ovarian tumors which may be misleading. [5] On computed tomography scan, it typically shows a well-demarcated soft tissue mass arising from the uterus with prominent tortuous vascular like enhancing structures that may be suggestive of uterine angioleiomyoma. However, no CT scan was done in our case. On gross examination, it is reported that they are usually well-circumscribed, homogenous, the whitish mass that measures 1.5cm to up to 22cm [7-9]. Gross findings were similar in our case.

Microscopically, based on the type of vascular channels, three histologic variants of angioleiomyomas are described. The most common are solid or capillary variant containing a large number of narrow slit-like vascular spaces. The other two variants are cavernous and venous. Cavernous tumors have large vascular spaces while the venous tumors contain veins with the thick vascular wall [10]. Mitotic figures and necrosis are not seen usually. On microscopy, our case revealed features of the capillary variant of angioleiomyoma. It is difficult to distinguish angioleiomyoma from a

hemangioma or an arteriovenous malformation. Although hemangiomas are poorly defined grossly and microscopically while angioleiomyomas are well defined grossly. Immunohistochemical stains for smooth muscle cells like SMA and vessel markers like CD34 and CD31 are useful in differentiating angioleiomyoma from other neoplasms like angiofibroma, fibroma, and angiomyofibroblastoma. Although, no immunohistochemical stains were done on our case. Total hysterectomy with or without salpingo-oophorectomy is usually recommended, as was done in our case [11]. No recurrence is seen in these tumors.

Conclusion

While assessing the smooth muscle neoplasms of the female genital tract, a distinct entity of angioleiomyoma should be considered as this lesion can lead to life-threatening complications of spontaneous rupture. Preoperative diagnosis is extremely difficult; therefore, histopathological examination plays an important role to identify angioleiomyomas.

Conflict of Interest: *None declared*
Source of Support: *Nil*
Ethical Permission: *Obtained*

References

1. Weiss SW, Goldblum JR (Eds) (2001) Enzinger and Weiss's: soft tissue tumors. 4th edn. Mosby, St. Louis.
2. Hakverdi S, Dolapçioğlu K, Güngören A, Yaldiz M, Hakverdi AU. Multiple uterine angioleiomyomas mimicking an ovarian neoplasm: a case report. Eur J Gynaecol Oncol 2009;30(5):592-4.
3. Hsieh CH, Lui CC, Huang SC, OuYC, Chang Chien CC, Lan KC, et al. Multiple uterine angioleiomyomas in a woman presenting with severe menorrhagia. Gynecol Oncol 2003;90(2):348-52.
4. Culhaci N, Ozkara E, Yüksel H, Ozsunar Y, Unal E. Spontaneously ruptured uterine angioleiomyoma. Pathol Oncol Res 2006;12(1):50-51.
5. Miettinen M. Smooth muscle tumors. Modern Soft Tissue Pathology. 1st ed. New York: Markku Miettinen; 2010;463-66.
6. Agorastos T, Dinas K, Patsiaoura K. Cystic degenerated angioleiomyoma mimicking ovarian pathology. Acta Obstet Gynecol Scand 2001;80(9):863-5.
7. Hennig Y, Caselitz J, Stern C, Bartnitzke S, Bullerdiek J. Karyotype evolution in a case of uterine angioleiomyoma. Cancer Genet Cytogenet 1999;108(1):79-80.
8. Sakai Y. Epithelioid vascular leiomyoma of the uterus mimicking glomangiomyoma. Arch Gynecol Obstet 2007;275(1): 59-61.
9. Jameson CF. Angiomyoma of the uterus in a patient with tuberous sclerosis. Histopathology 1990;16(2):202-3.
10. Katenkamp D, Kosmehl H, Langbein L. Angiomyoma. Einepathologo-anatomische Analyse von 229 Fällen. Zentralbl Allg Pathol 1988; 134:423–433.
11. Mc Cluggage WG, Boyde A. Uterine angioleiomyomas: a report of 3 cases of a distinctive benign leiomyoma variant. Int J Surg Pathol. 2007;15(3):262–265.